

CLAIMS

1. A SARS neutralizing monoclonal antibody selected from the group consisting of F26G3, F26G7, F26G9, F26G10, F26G18 and F26G19.
2. A SARS detecting monoclonal antibody selected from the group consisting of: F26G1, F26G2, F26G4, F26G5, F26G6, F26G8, F26G12, F26G13, F26G14, F26G16, F26G17, F26G3, F26G7, F26G9, F26G10, G26G18 and F26G19.
3. A kit comprising at least one monoclonal antibody selected from the group consisting of: F26G1, F26G2, F26G4, F26G5, F26G6, F26G8, F26G12, F26G13, F26G14, F26G16, F26G17, F26G3, F26G7, F26G9, F26G10, G26G18 and F26G19.
4. A pharmaceutical composition comprising a SARS neutralizing monoclonal antibody selected from the group consisting of F26G3, F26G7, F26G9, F26G10, F26G18, F26G19 and combinations thereof and a suitable excipient.
5. A method of preparing a chimeric antibody comprising:
introducing an expression vector which comprises a nucleic acid encoding a constant region domain of a human light or heavy chain and a nucleic acid encoding a light chain variable region selected from the group consisting of G1-light (SEQ ID No. 34); G3-light (SEQ ID No. 28); G6-light (SEQ ID No. 35); G7-light (SEQ ID No. 29); G8-light (SEQ ID No. 36); G9-light (SEQ ID No. 30); G10-light (SEQ ID No. 31); G18-light (SEQ ID No. 32) and G19-light (SEQ ID No. 33) or a heavy chain variable region selected from the group consisting of G1-heavy (SEQ ID No. 25); G3-heavy (SEQ ID No. 19); G6-heavy (SEQ ID No. 26); G7-heavy (SEQ ID No. 20); G8-heavy (SEQ ID No. 27); G9-light (SEQ ID No. 21); G10-light (SEQ ID No. 22); G18-light (SEQ ID No. 23) and G19-light (SEQ ID No. 24) into a suitable host cell;
growing the host cell under conditions promoting expression of the chimeric antibody; and
recovering the chimeric antibody.
6. A method of preparing a humanized antibody comprising:
providing a nucleic acid comprising a light chain variable region selected from the group consisting of G1-light (SEQ ID No. 34); G3-light (SEQ ID No. 28); G6-light (SEQ ID No. 35); G7-light (SEQ ID No. 29); G8-light (SEQ ID No.

36); G9-light (SEQ ID No. 30); G10-light (SEQ ID No. 31); G18-light (SEQ ID No. 32) and G19-light (SEQ ID No. 33) or a heavy chain variable region selected from the group consisting of G1-heavy (SEQ ID No. 25); G3-heavy (SEQ ID No. 19); G6-heavy (SEQ ID No. 26); G7-heavy (SEQ ID No. 20); G8-heavy (SEQ ID No. 27); G9-light (SEQ ID No. 21); G10-light (SEQ ID No. 22); G18-light (SEQ ID No. 23) and G19-light (SEQ ID No. 24);

modifying said nucleic acid such that at least one but fewer than about 30 of the amino acid residues of said variable region has been changed and/or deleted without disrupting antigen binding;

introducing said nucleic acid into a suitable host cell;

growing the host cell under conditions promoting expression of the humanized antibody; and

recovering the humanized antibody.

7. A pharmaceutical composition comprising a chimeric antibody of claim 5 and a suitable carrier.

8. A pharmaceutical composition comprising a humanized antibody of claim 6 and a suitable carrier.

9. A method of preparing a vaccine comprising:

recovering from a preparation of live, attenuated or recombinant SARS virus, antigens recognized by one or more monoclonal antibodies selected from the group consisting of F26G1, F26G2, F26G4, F26G5, F26G6, F26G8, F26G12, F26G13, F26G14, F26G16, F26G17, F26G3, F26G7, F26G9, F26G10, G26G18 and F26G19.

10. A nucleic acid molecule encoding a peptide comprising a light chain variable region selected from the group consisting of G1-light (SEQ ID No. 34); G3-light (SEQ ID No. 28); G6-light (SEQ ID No. 35); G7-light (SEQ ID No. 29); G8-light (SEQ ID No. 36); G9-light (SEQ ID No. 30); G10-light (SEQ ID No. 31); G18-light (SEQ ID No. 32) and G19-light (SEQ ID No. 33) or a heavy chain variable region selected from the group consisting of G1-heavy (SEQ ID No. 25); G3-heavy (SEQ ID No. 19); G6-heavy (SEQ ID No. 26); G7-heavy (SEQ ID No. 20); G8-heavy (SEQ ID No. 27); G9-light (SEQ ID No. 21); G10-light (SEQ ID No. 22); G18-light (SEQ ID No. 23) and G19-light (SEQ ID No. 24).